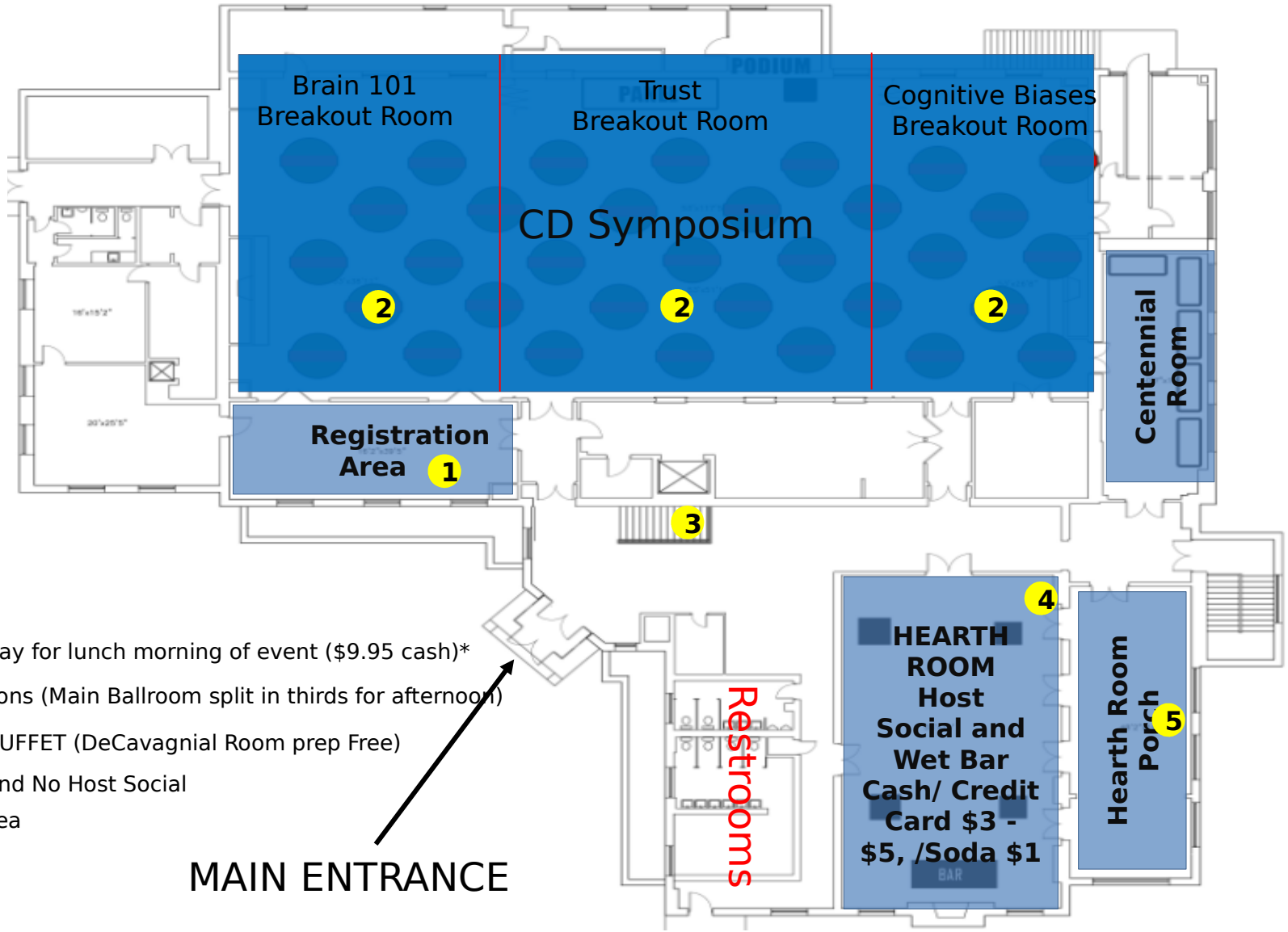
Welcome to the US Army's Combined Arms Center and the Cognitive Dominance Symposium

In support of Force 2025 and Beyond

Release of this information does not imply any commitment or intent on the part of the U.S. government to provide any additional information on any topic presented herein. This briefing is provided with the understanding that the recipient government will make similar information available to the U.S. government upon request.

Cognitive Dominance Symposium
Venue – Frontier Conference Center



Concept

1. Registration; pay for lunch morning of event ($9.95 cash)*
2. Breakout sessions (Main Ballroom split in thirds for afternoon)
3. SOLARIUM BUFFET (DeCavagnial Room prep Free)
4. Break area and No Host Social
5. Business Area

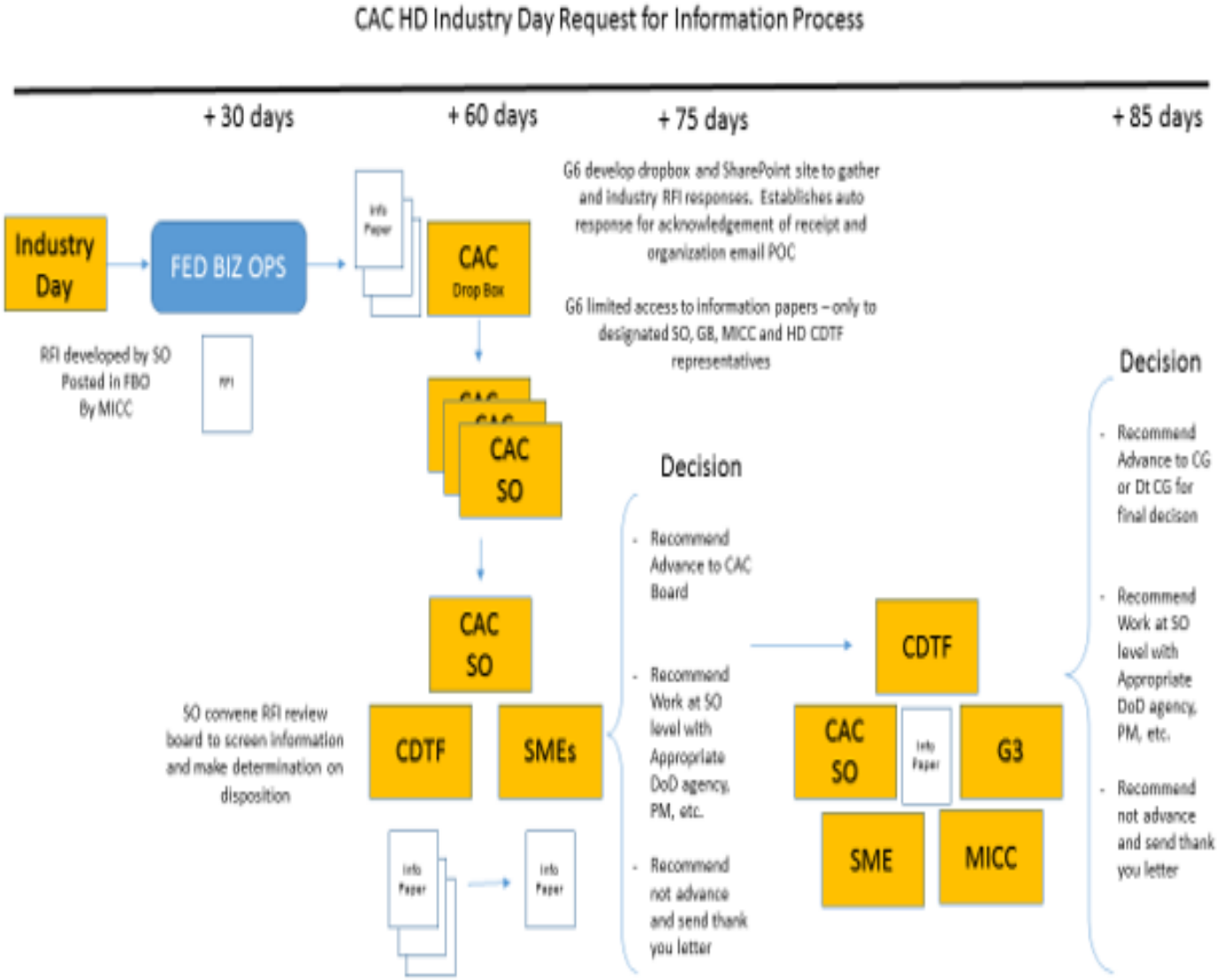
Cognitive Dominance Symposium Schedule

Theme: Optimizing Human Performance in an era of strategic uncertainty

14 April 2015

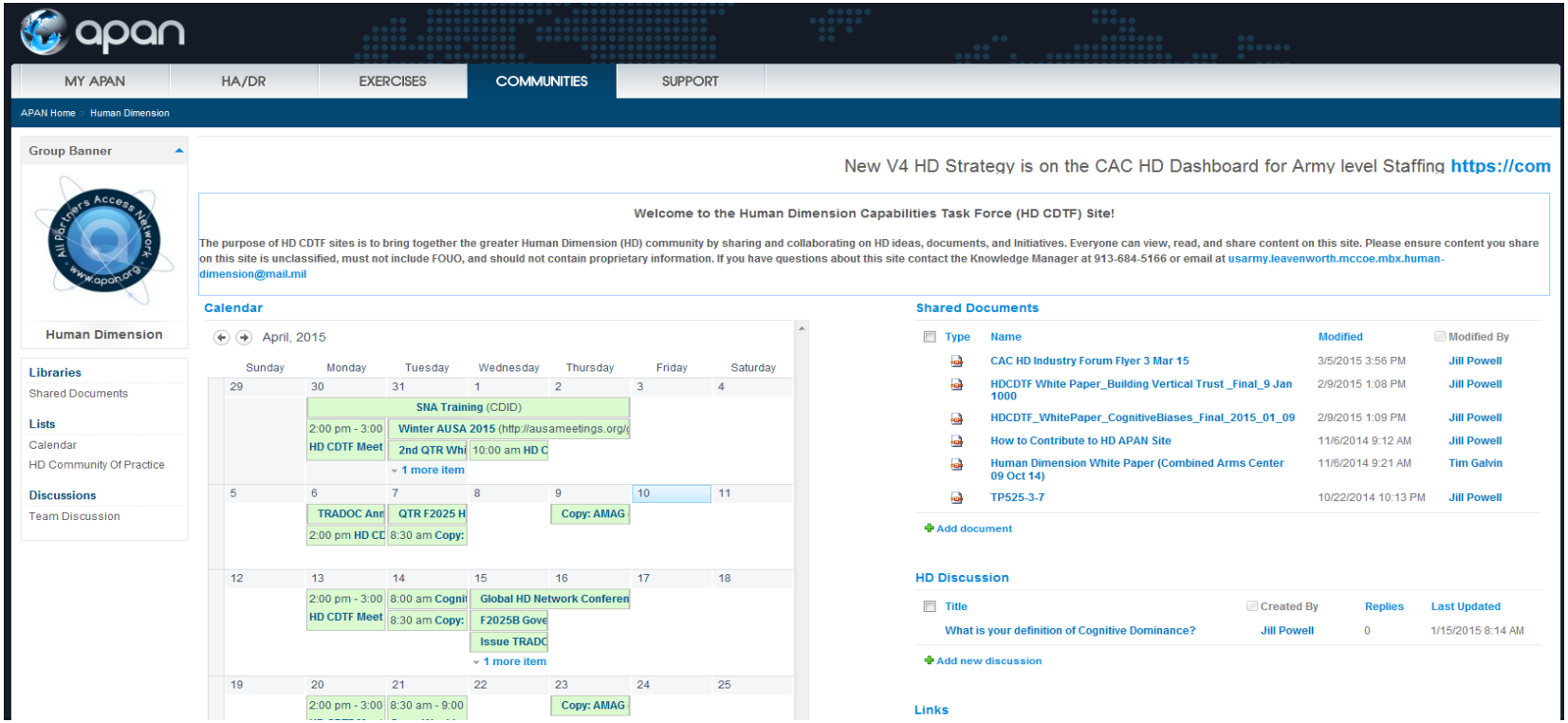
0730-0800 – Registration
0800-0805 – Administrative announcements/Rules of Engagement (LTC Morgan)
0805-0810 – Welcome (LTG Brown)
0810-0830 – Opening Remarks (HD Overview w/Cognitive Dominance Overview (LTG Brown)
0830-0910 – Brain Health Presentation (MG Caravalho)
0910-0920 – Break
0920-0950 – Brain Development (Dr. Mike Matthews)
0950-1000 – Break
1000-1125 – Cognitive Dominance Panel (LTG Brown, MG Caravalho, Dr. Matthews, COL Teyhen, COL Soloman, COL Petkosek)
1125-1300 – Lunch
1300-1330 – AWFC #9 Improve Soldier, Leader and Team Performance
1330-1345 – Break
1345-1445 – Breakout Sessions (Trust, Cognitive Biases and Decision Making, Brain 101)
1445-1500 -- Break
1500-1550 – Breakout Sessions back brief (Session leads)
1550-1600 – Conclusion/Reminders (LTC Morgan)
1600-1630 – Executive Capstone (LTG Brown)
1600-1730 – No Host Social (Hearth Room)
1730 Index

Cognitive Dominance Symposium RFI Process


CAC HD Industry Day Request for Information Process
+ 30 days
+ 60 days
+ 75 days
+ 85 days
Industry Day
FED BIZ OPS
Info Paper
CAC Drop Box
G6 develop dropbox and SharePoint site to gather and industry RFI responses. Establishes auto response for acknowledgement of receipt and organization email POC
G6 limited access to information papers – only to designated SO, GB, MICC and HD CDTF representatives
RFI developed by SO Posted in FBO By MICC
RFI
CAC SO
Decision
- Recommend Advance to CAC Board
- Recommend Work at SO level with Appropriate DoD agency, PM, etc.
- Recommend not advance and send thank you letter
CAC SO
SO convene RFI review board to screen information and make determination on disposition
CDTF
SMEs
Info Paper
Info Paper
CDTF
CAC SO
Info Paper
G3
SME
MICC
Decision
- Recommend Advance to CG or Dt CG for final decison
- Recommend Work at SO level with Appropriate DoD agency, PM, etc.
- Recommend not advance and send thank you letter

tners Network Access (APAN) is a non-CAC card accessible SharePoint site for collaboration on Human Dime
ves, ideas, and discussions with Industry, Academia, Government, and Multi National.

/wss.apan.org/s/HD/



BG William Burleson

Director

Mission Command COE

LTG Robert Brown

CG, CAC

MG Joe Caravalho

Office of The Surgeon General, DCG-S

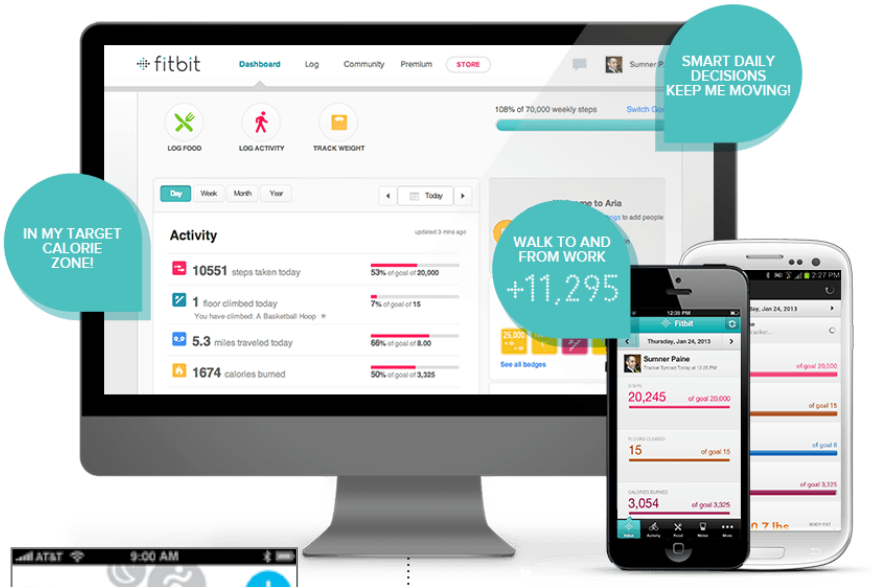
Dr. Mike Matthews

CSA Strategic Studies Group

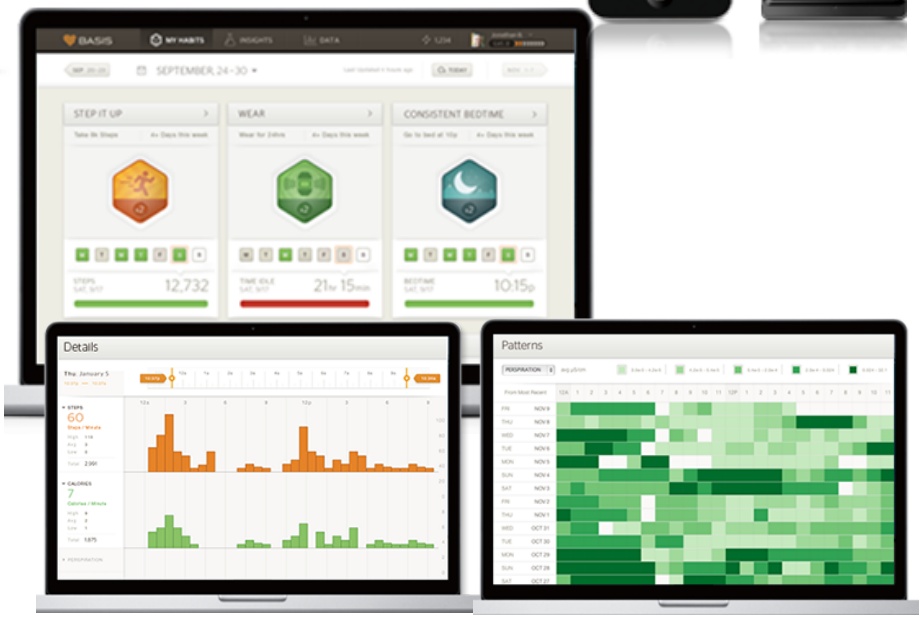
Cognitive Dominance Panel

COL Teyhen

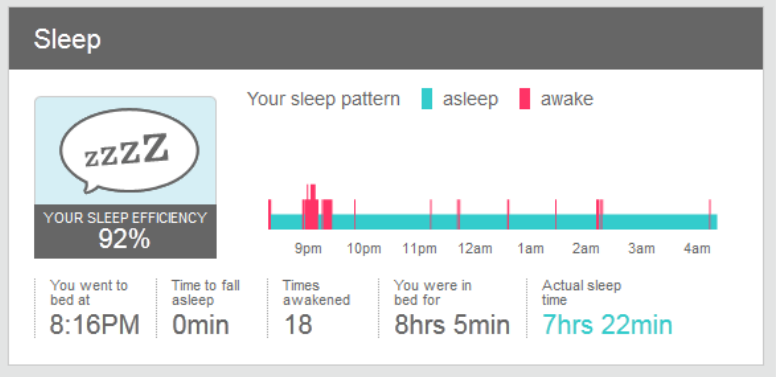
Web & Mobile Applications

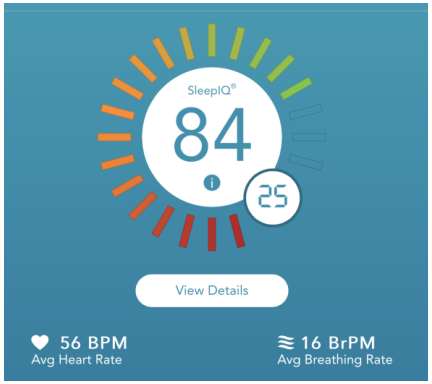


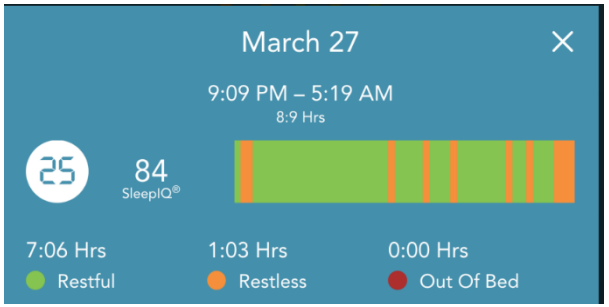
Today
9:00
Took 1000 steps
At 9:00AM, you took
1002
steps
time active
24 min
10 min Jog
Activity:
Jog
time active
9 min
10 min workout
Activity
Jog
By making exercise fun, you will do more and get more out of your workout. Even if you are just going for a walk, consider establishing a goal ahead of time. For reference, the Golden Gate bridge is 1.7 miles from end to end.

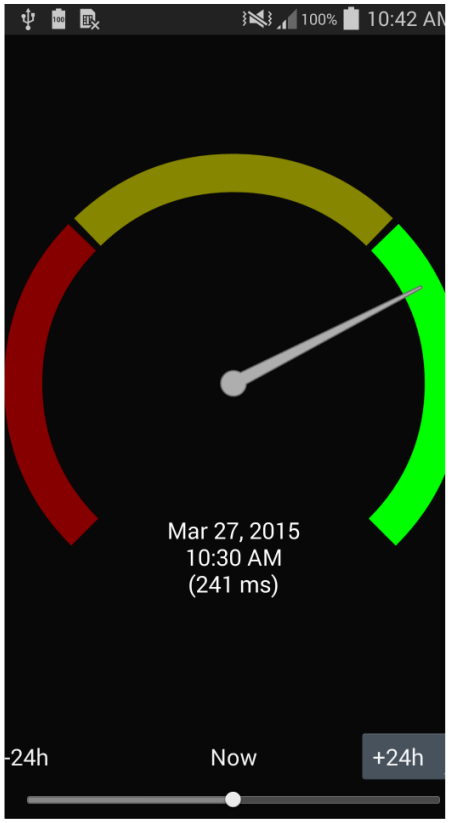


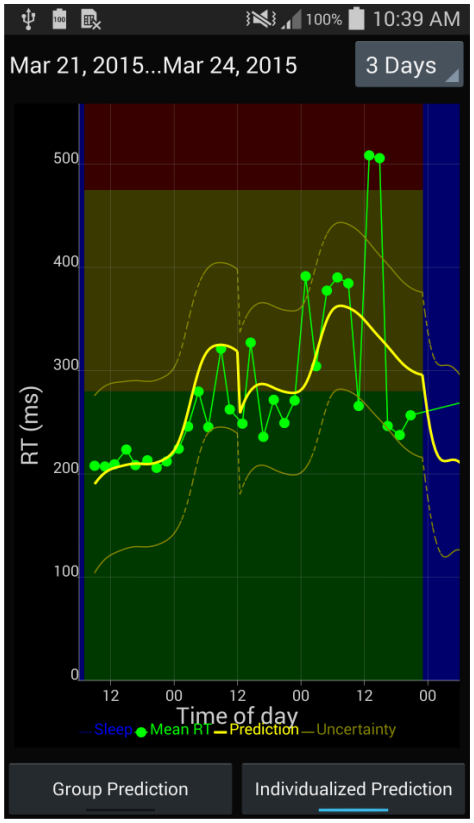
Sleep


Sleep
zzzZ
YOUR SLEEP EFFICIENCY
92%
Your sleep pattern
asleep
awake
9pm
10pm
11pm
12am
1am
2am
3am
4am
You went to bed at
8:16PM
Time to fall asleep
0min
Times awakened
18
You were in bed for
8hrs 5min
Actual sleep time
7hrs 22min

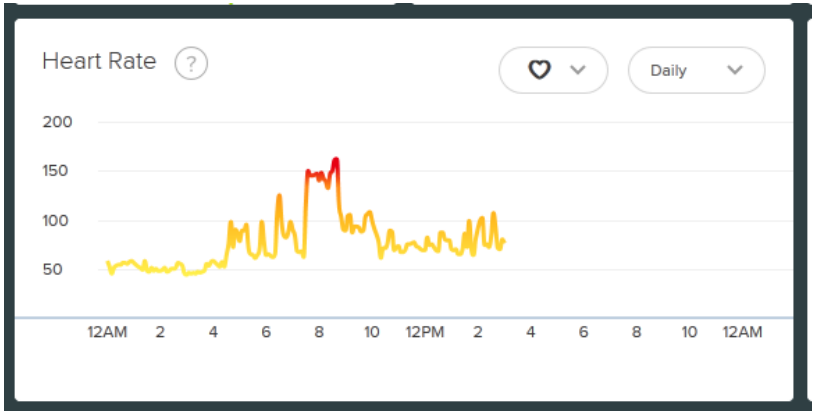

SleepIQ®
84
25
View Details
56 BPM
Avg Heart Rate
16 BrPM
Avg Breathing Rate


March 27
9:09 PM – 5:19 AM
8:9 Hrs
25
84
SleepIQ®
7:06 Hrs
Restful
1:03 Hrs
Restless
0:00 Hrs
Out Of Bed

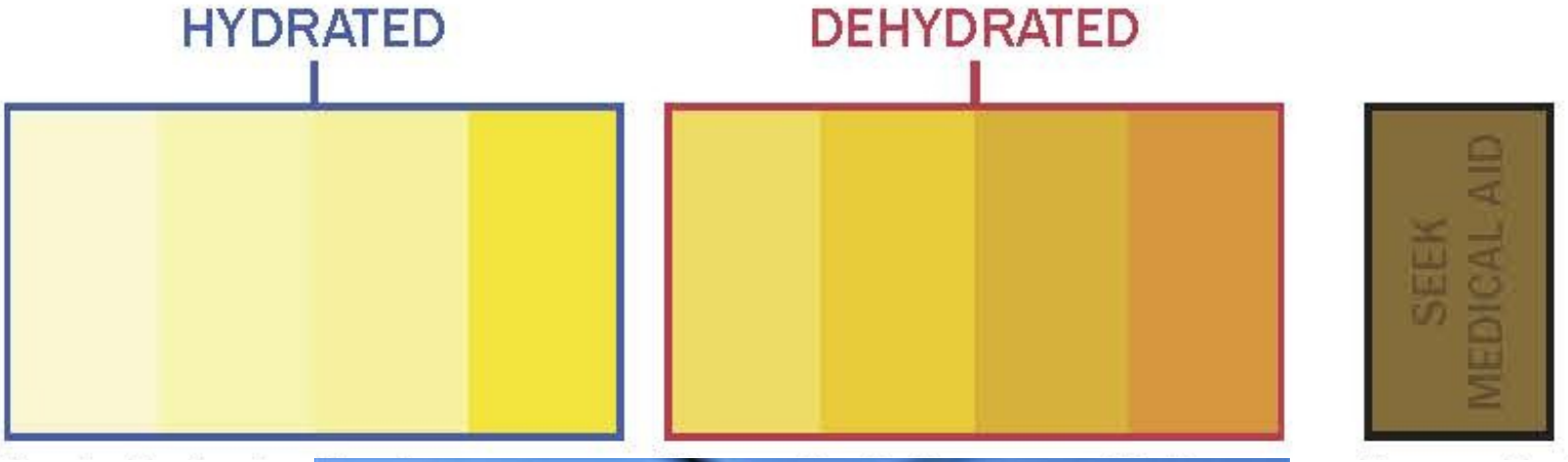

10:42 AM
Mar 27, 2015
10:30 AM
(241 ms)
-24h
Now
+24h


10:39 AM
Mar 21, 2015...Mar 24, 2015
3 Days
RT (ms)
500
400
300
200
100
0
12
00
12
00
12
00
Time of day
Sleep
Mean RT
Prediction
Uncertainty
Group Prediction
Individualized Prediction

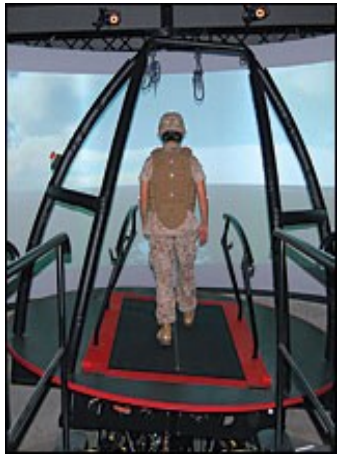
Physical Activity

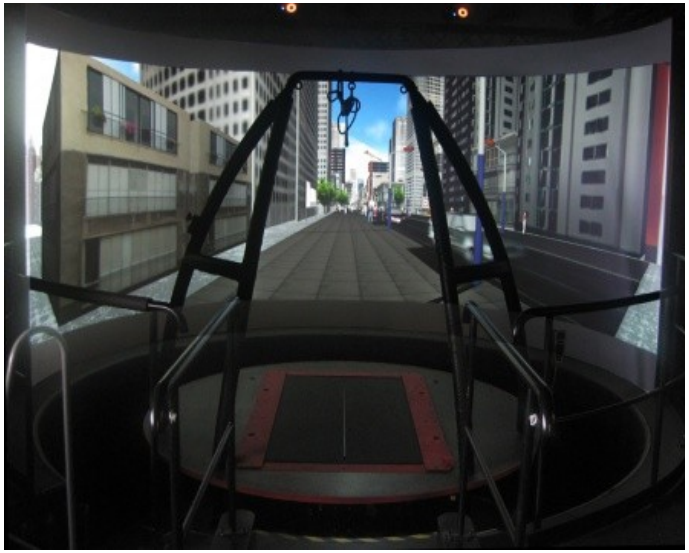


Nutrition

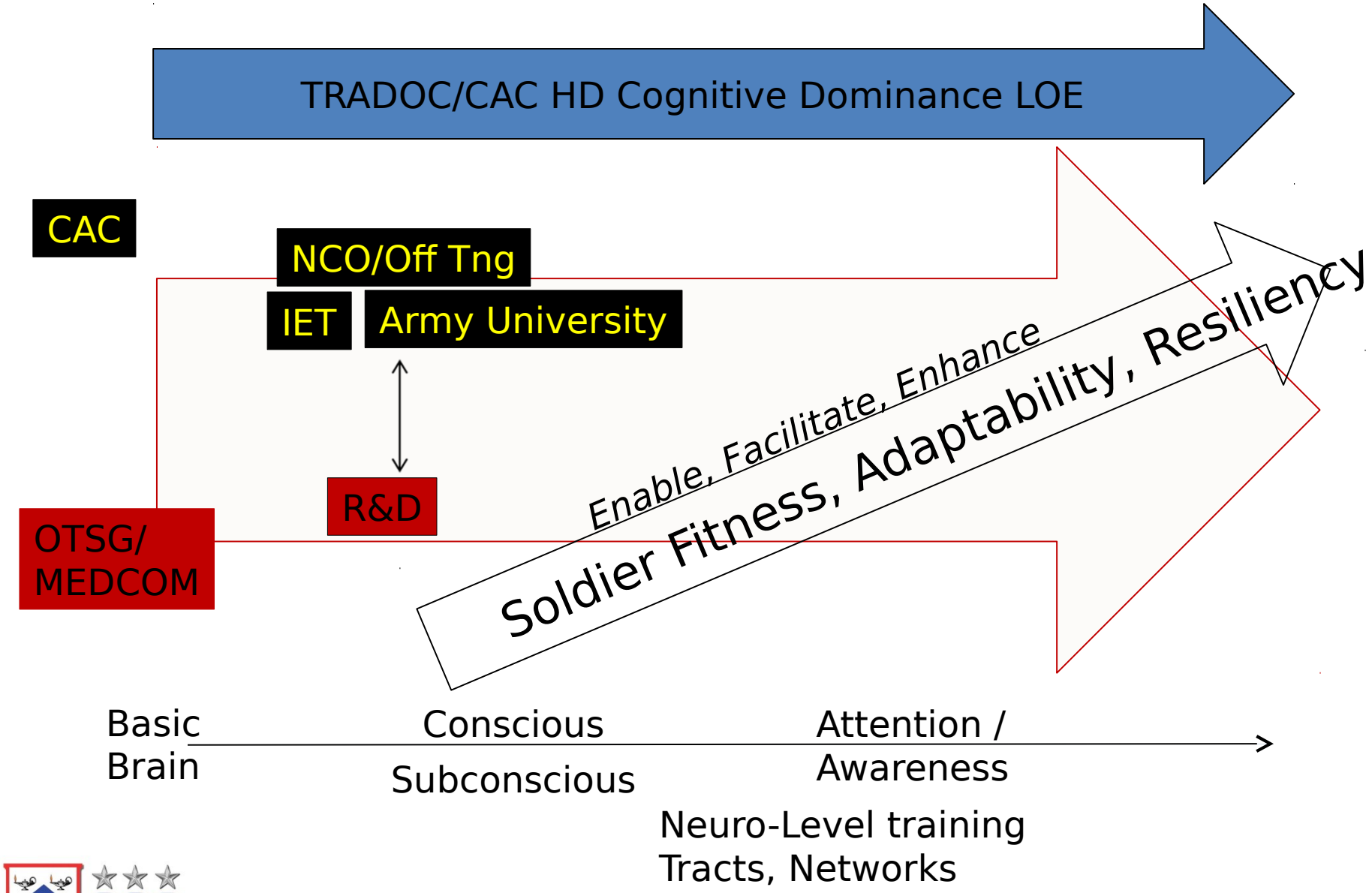


Virtual Reality





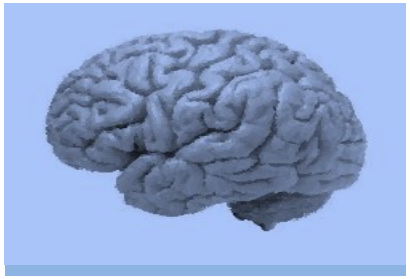
COL Solomon


TRADOC/CAC HD Cognitive Dominance LOE
CAC
NCO/Off Tng
IET
Army University
R&D
OTSG/
MEDCOM
Enable, Facilitate, Enhance
Soldier Fitness, Adaptability, Resiliency
Basic
Brain
Conscious
Subconscious
Attention /
Awareness
Neuro-Level training
Tracts, Networks

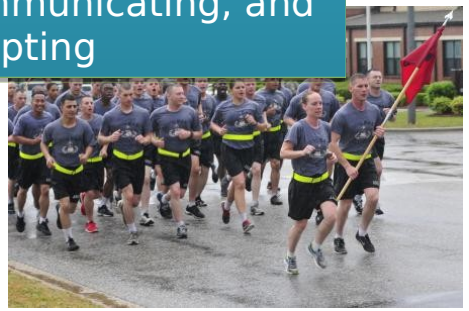
Brain Health

Performance Triad
Sleep | Activity | Nutrition

Optimal cognitive and emotional fitness enriched by training, learning and improving overall performance



Enriches and improves overall performance through improved attention, reasoning, decision making, problem solving, learning, communicating, and adapting



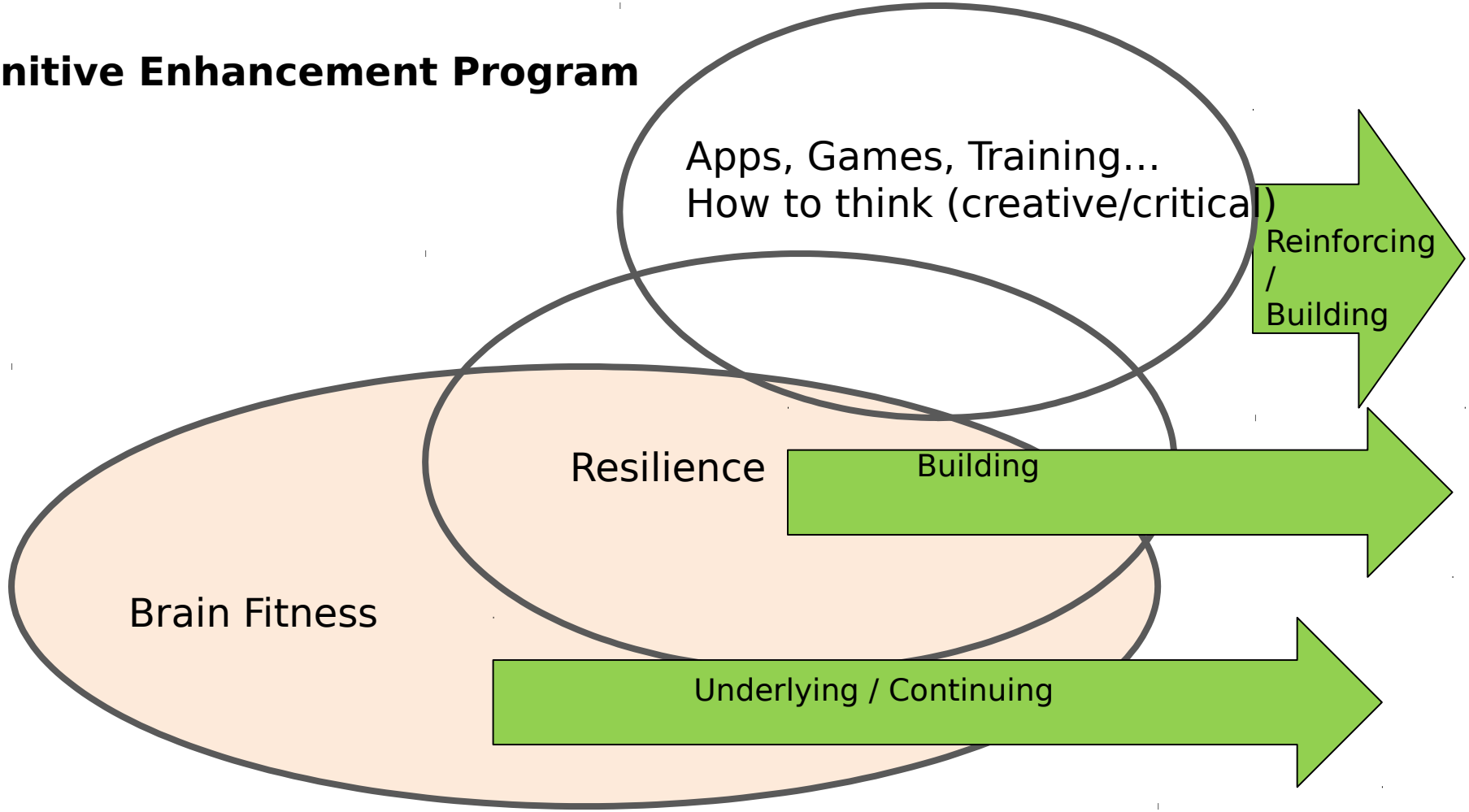
Brain fitness is the state of cognitive, psychological, and behavioral optimization which enables peak human performance through the brain's capabilities of attention, reasoning, decision making, problem solving, learning, communicating, and adapting

TSG Comments

- A well-rested and a well-profused and well-fueled brain equates to better decisions.
- At war, that equates to a combat advantage.
- In life, that equates to a better you; it equates to a better family, and it equates to a better community.

Cognitive Enhancement Pictogram

ognitive Enhancement Program



?

http://armymedicine.mil

COL Petkosek

Adaptability Lines of Effort

(U) CSA Priority: Army Adaptive Leaders for a Complex World

(U) TRADOC CG Priority: Develop innovative and

Institutional

- **(U) US Army Cadet Command OTM training ISO Cadet Summer Training**
- **(U) Completed TRADOC Task Order ISO SITA Phase II**
- **(U) Currently developing options to better nest the adaptability effort with CAC / MCCoE and the Human Dimension**

Home Station Training

- **(U) Asymmetric Warrior Adaptive Leader Program (AWALP) Revised from individual to collective / organizational focus**
- **(U) Responsive to the Operating Force (4/82nd, 3/82nd, 3/3ID, 25th ID (L), and JTF- HOA)**

Combat Training Centers

- **(U) Integration of the ASLTE principles ISO 1/509th (OPFOR)**
- **(U) Integration of the ASLTE principles ISO JMRC and ISTC**
- **(U) Potential to support OTM / OPFOR ASLTE training in**

Desired Outcome for Adaptive Leaders:

BE: Confident to use disciplined initiative

KNOW: Critical components to develop situational awareness for team understanding

DO: Succeed in spite of uncertainty and chaotic conditions

Way Forward: (U) Nest the AWALP / ASLTE adaptability effort with CAC / MCCoE and the Human Dimension
Initiative in order to develop agile and adaptive leaders capable of winning in a complex world.

Mr. Parker

AHDS Strategic Approach

Army Profession

Leader Development

LOE #1

LOE #2

LOE #3

Cross-cutting Concepts

Cognitive Dominance

LOE#1: Strategic Objective

By 2025, the Army has the capability and capacity to optimize the performance of every Soldier and Civilian in the Total Force.

Realistic Training

LOE#2: Strategic Objective

By 2025, the Army conducts training in complex environments to build cohesive teams that thrive in ambiguity and chaos.

Institutional Agility

LOE#3: Strategic Objective

By 2025, the Army Institution rapidly adapts to changing situations, seizes opportunities, and fields innovative solutions in advance of need, while maintaining the Army as a profession.

Endstate

An Army of cohesive teams of trusted professionals who adapt and win in a complex world

Strategic Objective #1: By 2025, the Army has the capability and capacity to optimize the performance of every Soldier and Civilian in the Total Force.

Cognitive Dominance Definition: optimizing intellectual, physical, and emotional strength to achieve advantage over a situation or adversary

Supporting Objective #1.1: Intellectual Optimization. Develop innovative and individualized learning programs to equip Army Professionals with the intellectual diversity and capacity to succeed in complex environments.

Supporting Objective #1.2: Social Intelligence. Develop trusted Army Professionals as effective team members who thrive in complex social environments, adapt to diverse cultures, communicate effectively, and build relationships.

Supporting Objective #1.3: Holistic Health and Fitness. Enhance Soldier and Army Civilian health and physical readiness through an individualized comprehensive system that improves human performance and resilience.

Supporting Objective #1.4: Decisionmaking. Improve the decisionmaking ability and ethical conduct of Soldiers and Army Civilians through individual and collective learning programs that challenge Army Professionals in complex operational and ethical situations.

Supporting Objective #1.5: Human Performance Research and

Army Warfighting Challenges And the Human Dimension

LEAD CoE	20 AWfCs	Functional Divisions
Mission Command	**(2)** Shape the Security Environment *(w/ USASOC)* **(4)** Adapt the Institutional Army **(8)** Enhance Training *(w/ CAC-T)* **(9)** Improve Soldier, Leader, and Team Performance **(10)** Develop Leaders **(14)** Ensure Interoperability and Operate in JIM Environment *(w/ USASOC)*	Mission Command and [illegible]
Intelligence	**(19)** Develop Situational Understanding *(w/ USASOC)*	Human Dimension
Special Ops	**(3)** Provide Security Force Assistance *(w/ CAC)*	
Cyber	**(7)** Conduct Cyber-Electromagnetic Operations	LandWarNet
Maneuver	**(12)** Conduct Entry Operations and Maintain Communications **(13)** Conduct Wide Area Security **(15)** Conduct Combined Arms Maneuver *(w/ AVCoE)*	Maneuver Aviation & Soldier
Aviation	**(11)** Conduct Air-Ground Reconnaissance *(w/ MCoE)*	
Fires	**(17)** Deliver Offensive Fires **(18)** Deliver Defensive Fires	Fires
Maneuver Support	**(5)** Counter WMD **(6)** Homeland Operations	MNVR Support & Protection
Sustainment	**(16)** Set the Theater, Sustain Operations, and Maintain Freedom of Movement	Sustainment
ARCIC	**(20)** Develop Capable Formations	All WfFs

Process Deliverables
(for each AWfC)

Problem Statement (description of challenges)

List of Learning Demands (10 max)

Integrated Learning Plan

Interim Solution Strategy

Running Estimate

Coordinate Stakeholder Activities

Risk & Value = Priorities

Analytical Approach

What must we do? (Capability Needs)

What can't we do? (Gaps)

Are there potential mature, interim solutions?

What do we trade? (CBA)

Should we pursue the mature, interim solutions?

Senior Leader Decisions

HD & AWfC Integration:

9 of 20 AWfCs have significant HD components (in **red** above) and HD is a Functional Division within the AWfC framework. The challenge is how to ***best manage the cross-cutting HD components within those 9 AWfCs*** to ensure synchronization inside TRADOC.

AWfC #9 = Most Holistically Nested within Human Dimension

Army Warfighting Challenge #9: "Improve Soldier, Leader, and Team Performance"

= Human Dimension Endstate: "Optimize Human Performance"

7x AWfC #9 Learning Demands based on the 16x HD Key Required Capabilities in the U.S. Army

HD Concept (TRADOC PAM 525-3-7) and further informed by the CAC HD White Paper

1) Talent Management. How can the Army best manage individual talent throughout the career lifecycle with an integrated approach that leverages recruiting, retention, accessions, professional development, promotion, succession planning, and assignment strategies to ensure the optimal employment of all Soldiers, leaders, and teams?

2) Assessments. How can the Army best employ cognitive, physical, and social assessments that identify the attributes and measure the abilities (baseline and subsequent) of Soldiers, leaders, and teams to predict potential performance, enhance talent management, and help sustain or improve the following: decision making, problem solving, holistic health and fitness, adaptability, resilience, commitment to the Army Ethic, and the skills required to effectively lead and interact with others?

3) Physical Readiness. How can the Army best implement a comprehensive system for holistic health and fitness that screens prospective recruits to ensure they meet the minimum standard baseline and then educates, trains, and inspires Soldiers, leaders, and teams to sustain or improve both general physical fitness and functional fitness while reducing the risk of injury and facilitates the assessment of individual and unit physical readiness?

4) Resiliency. How can the Army best enhance the resilience of Soldiers, leaders, and teams to resist the negative effects of prolonged exposure to stress and thus optimize holistic health and fitness?

5) Accelerated Learning. How can the Army best accelerate the learning, experience, training, and education of Soldiers, leaders, and teams to develop the technical, tactical, social, and cultural skills and knowledge necessary to support unified land operations?

6) Adaptive Leaders. How can the Army best build ethical, creative and critical thinking leaders at all echelons with refined problem solving skills and the knowledge required to understand political, military, economic, social, information, infrastructure, physical environment, and time (PMESII-PT) variables and who effectively lead, train, and mentor their subordinates?

7) Team Building. How can the Army best facilitate positive team dynamics at all echelons that promote mutual trust, shared understanding, disciplined initiative, prudent risk taking, and foster cohesive and collaborative

Breakout Sessions

- Building Trust (LTC Hanlen)
- Cognitive Biases and Decision Making (LTC Despain)
- Brain 101(LTC Chambers)

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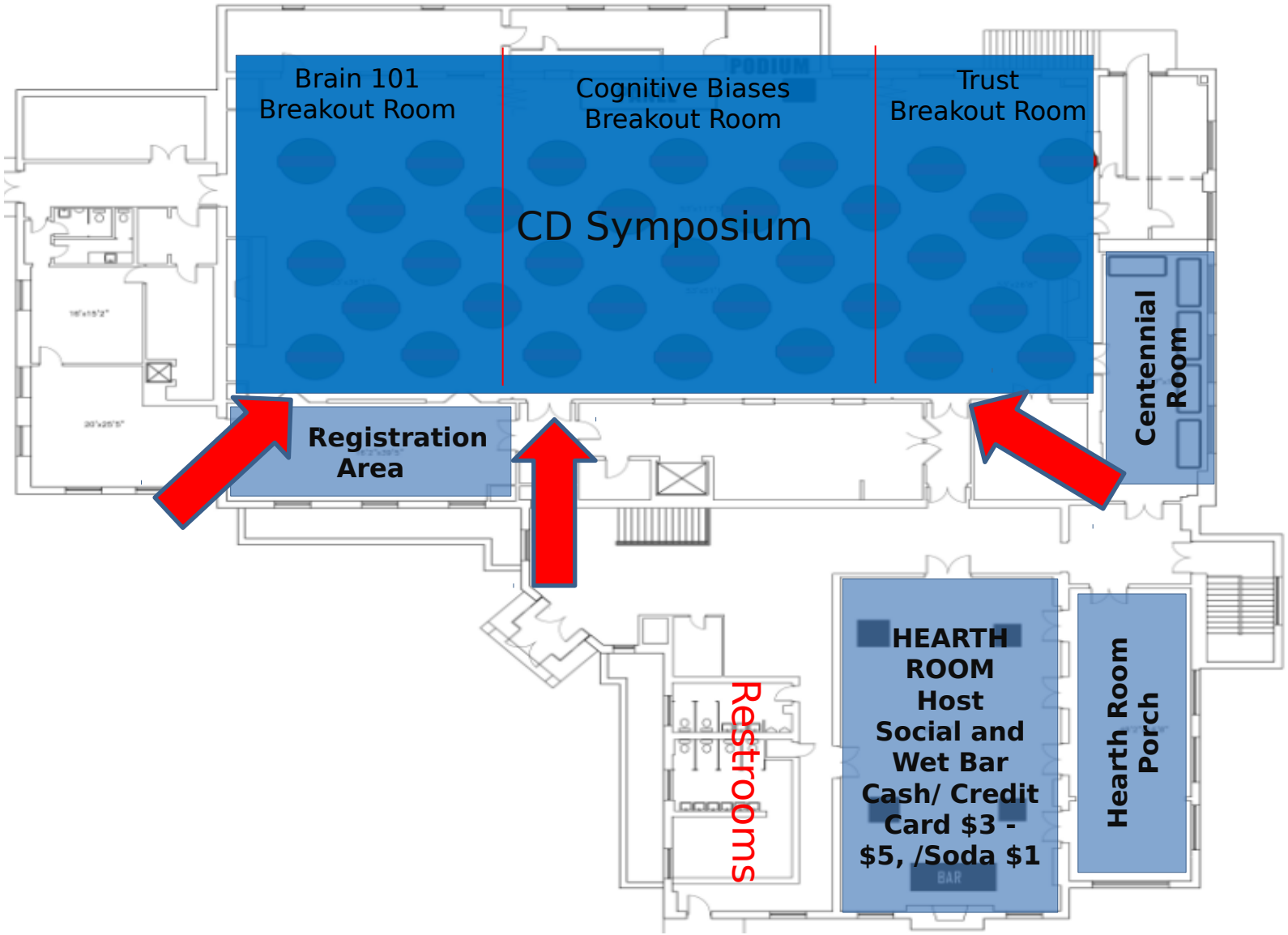

Breakout Backbriefs

- Trust (LTC Hanlen)
- Cognitive Biases and Decision Making (LTC Despain)
- Brain 101(LTC Chambers)

Breakout Backbriefs

- Trust – LTC Hanlen

Breakout Backbriefs

- Cognitive Biases and Decision Making – LTC Despain

Breakout Backbriefs

- Brain 101 – LTC Chambers

Final Remarks/Reminders

Executive Capstone

LTG Brown

Thank You for Attending